

REMARKS

The claims in the application remain 1-4 and 6-16.

Favorable reconsideration of the application as amended is respectfully requested.

Independent Claim 1 has been amended to eliminate the rejection under 35 U.S.C. §112, second paragraph, set forth in paragraph 3 of the Office Action. More particularly, Claim 1 has been amended to recite the inventive wave shielding material comprises a fibrous structure base material and conductive metal layer, with the fibrous structure base material being a three-dimensionally knitted base material subjected to electroless plating and composed of an upper ground structure 1, a lower ground structure 1 and connection thread 2 interconnecting the upper and lower ground structures 1,1 (reference is being made to preferred embodiments illustrated in the drawings of the present application).

More specifically, the connection thread 2 of the three-dimensionally knitted base material is arranged to avoid intersecting the section plane at a sectional portion 3 of the three-dimensionally knitted base material, thereby providing portions 3 between the upper and lower ground structures 1,1 omitting connecting thread 2 and situated between portions containing the connecting thread 2 between the upper and lower ground structures 1,1. These features are shown in Figs. 1 and 2 and described, e.g., on pages 12-13 of the present application. Reference numerals have been included in the claims to enhance comprehension.

In response to the questions raised by the Examiner in paragraph 3 of the Office Action, the structure of the inventive wave shielding material comprises portions 3 between the ground structures 1,1 omitting the connecting thread 2 and forming gaps 3 between the connecting thread 2, enhancing cutting as described, e.g., on pages 12-13 of the present application. Accordingly, it is respectfully submitted the rejection under 35 U.S.C. §112, second paragraph, has been eliminated by the present amendment.

Accordingly, the only outstanding issue is the art rejection of the claims. More particularly, Claims 1-4 (Claim 5 had been previously canceled) and 7-16 have been rejected under 35 U.S.C. §103 as obvious over U.S. Pat. No. 5,589,245 to Roell in view of U.S. Pat. No. 4,201,825 to Ebneith in paragraph 5 of the Office Action, while Claim 6 has been rejected additionally in view of U.S. Pat. No. 5,532,052 to Eng et al in paragraph 6 of the Office Action. At the bottom of page 3 of the Office Action, it is asserted the claimed feature of providing gaps 3 between connecting thread 2 in the sectional direction is inherently shown in Fig. 1 of Roell. However, Applicants respectfully take issue with this assertion for the following reasons.

As pointed out previously, the present invention is directed to a three-dimensional knitted base material forming a fibrous structure base composed of upper and lower ground structures 1,1 interconnected by thread 2 and having portions or gaps 3 between the upper and lower ground structures 1,1 omitting connecting thread 2. A conductive metal layer on the shielding material is formed by an electroless plating with at least one conductive metal. The inventive material provides the explicit

improvements documented in the comparative testing presented in Table 1 on page 24 of the present application. In particular, separation of coating metal is suppressed while cutting debris generated during manufacture is reduced. Additionally, shielding improves while compressive stress is reduced.

The applied art fails to suggest the claimed invention and accompanying advantages attained thereby, for the following reasons. Roell fails to contain any suggestion of metal plating of the layers therein, much less in the fashion of the presently claimed invention. The excerpts in Roell cited by the Examiner in paragraph 5 of the Office Action disclose the following:

Column 4, lines 20-38 of Roell relate to changing the pile thread material or structure 3, 4 and 5, and not the covering layers 1,2;

Column 4, lines 56-60 of Roell relate to activating a filler material within the textile spacer material, with it being just briefly mentioned the textile spacer material can be "subsequently coated" and/or the pile threads surface-modified, there be no further suggestion of what kind of coating or how such coating might be applied; and

Column 5, lines 4-8 of Roell concern impregnating the pile thread structure 2,3,4 or the entire textile spacer material with a hardening impregnating agent such as resin. Accordingly, Roell fails to contain even a remote suggestion of applying metal to his material structure, much less applying a conductive metal layer in the fashion of the presently claimed invention to attain the explicit advantages documented in the present application and described *supra*.

Ebneth is directed to coating material such as fibers or filaments composed predominantly of acrylonitrile polymer. There is no suggestion in Ebneth that a three-dimensionally knitted material can be successfully electrolessly plated to uniformly coat both the upper and lower ground structures 1, 1 and interconnecting thread 2. While Ebneth might simply disclose electrical equipment can be screened from foreign waves (column 3, lines 45-47), nevertheless Ebneth fails to contain any recognition of the advantages of improved shielding and reduced compressive stress, separation of coating and cutting debris attained by the present invention as documented in the present application.

Additionally, it is respectfully pointed out Ebneth issued as a U.S. patent almost 14 years before Roell was even filed as a patent application, yet Roell fails to contain even the slightest recognition of providing any type of coating in the fashion of Ebneth. This, in and of itself, is evidence of the unobvious nature of the presently claimed invention and substantiates the combination of Roell with Ebneth could only be fashioned by improper hindsight reconstruction of the claimed invention, in light of the disclosure in the present application.

In this regard, it is respectfully pointed out Applicants are not claiming to be the first to invent electroless plating or even electromagnetic wave shielding. Rather, Applicants are the first to invent a material of particular structure which attains the explicit combination of advantageous properties as documented in the present application.

Eng et al relate to camouflage material having radar screening properties and composed of warp-knitted "Raschel" fabric including metal fibers such as steel fibers. Accordingly, Eng et al fail to add anything to Roell and/or Ebneith explicitly teaching preparation of the inventive material including, among other features, upper and lower ground structures 1,1 coated with a conductive metal layer.

Concerning the Examiner's assertion noted *supra* that the claimed feature of providing gaps 3 between connecting thread 2 in the sectional direction is inherently shown in Fig. 1 of Roell, it is respectfully pointed out Roell just discloses a continuous matrix of thread structure 3 in Fig. 1 thereof. Furthermore, all Figs. 2-9 of Roell require such a continuous matrix of thread structure. There is not the slightest suggestion in Roell of any interruption in the sectional direction of the matrices shown in Figs. 1-9. If anything, provision of uninterrupted matrices appear to be a requirement of the various embodiments shown in Roell.

In this regard, it is pointed out inherency must be absolutely certain and not a mere possibility: In re Oelrich (CCPA 1981) 666 F.2d 578, 212 USPQ 323; Ex parte Keith et al (POBA 1966) 154 USPQ 320. Further, it is explicitly stated in M.P.E.P. §2112 (IV) the Examiner must provide rational or evidence tending to show inherency. In the present instance, the only evidence of record substantiates provision of gaps 3 between connecting thread 2 would clearly not be an inherent feature of Roell. Therefore, contrary to the assertion at the bottom of page 3 of the Office Action, Fig. 1

of Roell fails to show a similar configuration to the claimed invention, hence the claimed features are not inherently shown by Roell.

The remaining art of record has not been applied against the claims and will not be commented upon further at this time.

Accordingly, in view of the forgoing amendment and accompanying remarks, it is respectfully submitted all claims pending herein are in condition for allowance. Please contact the undersigned attorney should there be any questions. A petition for an automatic one month extension of time for response under 37 C.F.R. §1.136(a) is enclosed in triplicate together with the requisite petition fee.

Early favorable action is earnestly solicited.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "George M. Kaplan", is written over a horizontal line.

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